WHAT IS CLAIMED IS:

1. A wireless LAN base station which holds wireless communication with at least one client terminal station, the wireless LAN base station comprising:

at least two wireless LAN modules, each of which is capable of holding the wireless communication with at least one client terminal station;

means for detecting the number of client terminal stations which are being holding the wireless communication with the wireless LAN base station; and

means for changing the number of active wireless LAN modules according to the detected number of the client terminal stations.

2. The wireless LAN base station according to claim 1, comprising:

a first wireless LAN module capable of holding the wireless communication with at least one client terminal station;

a second wireless LAN module capable of holding the wireless communication with at least one client terminal station;

determination means for determining whether the number of the client terminal stations which are holding the wireless communication with the wireless LAN base station is equal to or smaller than a predetermined number;

first control means for controlling all of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said first wireless LAN module, controls said first wireless LAN module to be activated and controls said second wireless LAN module to be deactivated, if a determination

result of the determination means is YES; and

second control means for controlling a part of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said first wireless LAN module, controls the rest of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said second wireless LAN module and controls said first wireless LAN module and said second wireless LAN module to be activated, if said determination result is NO.

3. The wireless LAN base station according to claim 2, wherein

said first wireless LAN module comprises a plurality of wireless communication sections based on different wireless communication systems from one another,

said second wireless LAN module comprises a plurality of wireless communication sections based on different wireless communication systems from one another, and

said determination means, said first control means, and said second control means operate according to each of the wireless communication systems.

4. The wireless LAN base station according to claim 3, wherein

the different wireless communication systems are used for respective packet sizes.

5. The wireless LAN base station according to claim 3, wherein

the different wireless communication systems are allocated for

respective packet types.

6. A communication control method at a wireless LAN base station which holds wireless communication with at least one client terminal station, and which comprises at least two wireless LAN modules, each of which is capable of holding the wireless communication with at least one client terminal station, the control method comprising steps of:

detecting the number of client terminal stations which are being holding the wireless communication with the wireless LAN base station; and

changing the number of active wireless LAN modules according to the detected number of the client terminal stations.

7. The communication control method according to claim 6,

wherein the wireless LAN base station comprises: a first wireless LAN module capable of holding the wireless communication with at least one client terminal station; and a second wireless LAN module capable of holding the wireless communication with at least one client terminal station, and

wherein the communication control method comprises:

a determination step of determining whether the number of the client terminal stations which are holding the wireless communication with the wireless LAN base station is equal to or smaller than a predetermined number;

a first control step of controlling all of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said first wireless LAN

module, controlling said first wireless LAN module to be activated and controlling said second wireless LAN module to be deactivated, if a determination result of said determination step is YES; and

a second control step of controlling a part of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said first wireless LAN module, controlling the rest of the client terminal stations which are holding the wireless communication with the wireless LAN base station to hold the wireless communication with said second wireless LAN module and controlling said first wireless LAN module and said second wireless LAN module to be activated, if said determination result of said determination step is NO.

8. The communication control method according to claim 7, wherein

said first wireless LAN module comprises a plurality of wireless communication sections based on different wireless communication systems from one another,

said second wireless LAN module comprises a plurality of wireless communication sections based on different wireless communication systems from one another, and

said determination step, said first control step, and said second control step are executed according to each of the wireless communication systems.

9. The communication control method according to claim 8, wherein

the different wireless communication systems are allocated for respective packet sizes.

10. The communication control method according to claim 8, wherein the different wireless communication systems are allocated for respective packet types.